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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/654,765

09/04/2003

Paul S. Nordman

7784-000630

6910

65961 7590 06/19/2007  
HARNES DICKY & PIERCE, PLC  
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EXAMINER

WARD, JESSICA LEE

ART UNIT

PAPER NUMBER

1733

MAIL DATE

DELIVERY MODE

06/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Interview Summary

Application No.

10/654,765

Applicant(s)

NORDMAN, PAUL S.

Examiner

Jessica L. Ward

Art Unit

1733

All participants (applicant, applicant's representative, PTO personnel):

(1) Jessica L. Ward.

(3) \_\_\_\_\_.

(2) Mr. Elchuk.

(4) \_\_\_\_\_.

Date of Interview: 14 June 2007.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.

If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: \_\_\_\_\_.

Identification of prior art discussed: \_\_\_\_\_.

Agreement with respect to the claims f) ☐ was reached. g) ☐ was not reached. h) ☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

#### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent and Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

#### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments:

Applicant faxed a proposed amendment to the Examiner (attached). Examiner informed Applicant that limitations added to claims 1 and 13 regarding the indices of refraction would not render the claims allowable over the prior art of record because the secondary reference to Day teaches such (column 3, lines 26-32). Examiner also informed Applicant that limitations added to claim 13 regarding securing the panel to a portion of a fuselage of an airborne mobile platform would not render the claims allowable over the prior art of record because such would have been obvious in view of Skubic, as set forth in paragraph 9 of the previous office action. Examiner reviewed Applicant's remarks submitted with the proposed amendment and pointed out that one would have been motivated to use matching indices of refraction for the fibers and resin of Graff based on the teaching of Day. Examiner also pointed out that Applicant is arguing the secondary references to Day, Padden, Skubic and Shore in a vacuum - Applicant points out all the claimed limitations each of these references fails to teach and then relies on these deficiencies as reason for why one skilled in the art would not combine these teachings with the primary reference to Graff. The Examiner reminds Applicant that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references (MPEP 2145, IV).



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DATE: June 13, 2007

No. OF PAGES (INCLUDING THIS PAGE): 13

FOR: Examiner Jessica L. Ward	ORIGINAL WILL FOLLOW BY: <input type="checkbox"/> REGULAR MAIL <input type="checkbox"/> OVERNIGHT MAIL <input type="checkbox"/> COURIER <input checked="" type="checkbox"/> WILL NOT FOLLOW
COMPANY: United States Patent and Trademark Office	
FAX NO.: 571-273-1223 PHONE: 571-272-1223	

FROM: Mark D. Elchuk

Please let us know by phone or fax if you do not receive any of these pages.

## COMMENTS:

Title: Window Skin Panel and Method of Making Same  
Application No. 10/654,765  
Filing Date: 09/04/2003  
Attorney Docket: 7784-000630

PROPOSED DRAFT AMENDMENT FOR YOUR REVIEW AND CONSIDERATION IN ANTICIPATION OF  
TELECONFERENCE SCHEDULED FOR THURSDAY, JUNE 14 AT 2:00 P.M.

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**DRAFT**

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/654,765  
Filing Date: September 4, 2003  
Applicant: Paul S. Nordman  
Group Art Unit: 1733  
Examiner: Jessica L. Ward  
Title: WINDOW SKIN PANEL AND METHOD OF MAKING  
SAME  
Attorney Docket: 7784-000630

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Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**AMENDMENT**

Sir:

In response to the Office Action mailed April 17, 2007, please amend the application as follows and consider the remarks set forth below.

**Amendments to the Claims** begin on page 2 of this paper.

**Remarks** begin on page 8 of this paper.

# DRAFT

## AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

### LISTING OF CLAIMS

1. (Currently Amended) A method of forming a structural window panel for an airborne mobile platform, comprising:

using a plurality of non-fibrous, metal sheets to form a frame structure, wherein the metal sheets define an opening;

providing a plurality of layers of generally optically transparent fiber pre-impregnated resin tape, where a resin of the tape has an index of refraction that generally matches an index of refraction of a plurality of fibers of said tape;

interleaving [[a]]said plurality of layers of generally optically transparent, fiber pre-impregnated resin tape between the metal sheets to substantially cover an entire surface portion of each one of the metal sheets and to fill the opening, the layers of pre-impregnated resin tape extending substantially to outer peripheral edges of the metal sheets;

heating the metal sheets and the fiber pre-impregnated resin tape layers as a unitary assembly within a tool such that the resin in each said pre-impregnated tape layer melts and substantially covers the metal sheets and fills the opening; and

once cured, the generally transparent, fiber pre-impregnated resin tape layers form a see-through window portion in the frame structure while covering substantially said metal sheets.

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2. (Cancelled)

3. (Previously Presented) The method of claim 1, wherein the fiber pre-impregnated resin tape layers each comprises a plurality of fibers impressed into a resin tape.

4. (Original) The method of claim 3, wherein the fibers are comprised of fiberglass.

5. (Previously Presented) The method of claim 3, wherein the resin comprises a transparent aliphatic epoxy resin.

6. (Cancelled)

7. (Previously Presented) The method of claim 1, wherein each said metal sheet comprises a plurality of metal foil strips.

8. (Cancelled)

9. (Previously Presented) The method of claim 1, wherein each said metal sheet is comprised of aluminum.



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10. (Previously Presented) The method of claim 1, wherein each said metal sheet is comprised of titanium.

11. (Previously Presented) The method of claim 1, wherein each said metal sheet forms an opening, said openings corresponding to a window.

12. (Original) The method of claim 1, wherein the fiber pre-impregnated resin tape has a width of approximately 1/8" (3.175 mm) to about 12" (304.8 mm).

13. (Currently Amended) A method of manufacturing a fuselage having a transparent window skin panel for use with an airborne mobile platform, comprising:

providing a tool;

providing a pre-impregnated resin tape comprised of a plurality of fibers impressed into a resin and where said plurality of fibers have an index of refraction that generally matches an index of refraction of a resin of said tape;

providing a non-fibrous, metal sheet having a plurality of spaced apart openings formed therein;

layering the pre-impregnated resin tape and the metal ~~sheet~~sheet onto the tool ~~and~~ such that the metal sheet and the pre-impregnated resin tape are aligned one atop the other, such that the pre-impregnated resin tape completely covers the openings and overlays substantially an entire outer surface of the metal sheet;

heating the tool, the metal sheet, and the pre-impregnated resin tape such that the resin flows to substantially cover an entirety of the metal sheet and the fibers,

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the resin and fibers being substantially transparent to form a plurality of see-through window portions in the skin panel in the spaced apart openings;

removing the skin panel from the tool and securing it to a portion of a fuselage of said airborne mobile platform.

14. (Cancelled)

15. (Previously Presented) The method of manufacturing a transparent window skin panel of claim 13, wherein providing a pre-impregnated resin tape, providing a metal sheet, and layering the pre-impregnated resin tape and the metal sheet onto the tool comprises using a plurality of metal sheets and a plurality of layers of pre-impregnated resin tape, and arranging the metal sheets and layers of pre-impregnated resin tapes in alternating layers.

16. (Cancelled)

17. (Previously Presented) The method of manufacturing a transparent window skin panel of claim 13, wherein applying the pre-impregnated resin tape within any given layer comprises sandwiching a plurality of fiber pre-impregnated resin tape layers one adjacent another to fully cover the metal and to fully fill the openings in the metal sheet.

18. (Cancelled)

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19. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the resin comprises a transparent aliphatic epoxy.

20. (Previously Presented) The method of manufacturing a transparent window skin panel of claim 13, wherein the metal sheet is comprised of aluminum.

21. (Previously Presented) The method of manufacturing a transparent window skin panel of claim 13, wherein the metal sheet is comprised of titanium.

22. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the fibers are comprised of fiberglass.

23. (Cancelled)

24. (Cancelled)

25. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the metal sheet comprises a plurality of metal foil strips.

26. (Cancelled)

27. (Cancelled)

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28. (Cancelled)

29. (Original) The method of manufacturing a transparent window skin panel of claim 13, wherein the pre-impregnated resin tape has a width of approximately 1/8" (3.175 mm) to about 12" (304.8 mm).

30. (Previously Presented) The method of manufacturing a transparent window skin panel of claim 13, further comprising placing a caul plate atop the metal sheet, the pre-impregnated resin tape, and the tool.

31. (Previously Presented) The method of manufacturing a transparent window skin panel of claim 30, further comprising placing the caul plate, the metal sheet, the pre-impregnated resin tape, and the tool into a vacuum bag and removing the air therein.

32. (Previously Presented) The method of manufacturing a transparent window skin panel of claim 13, wherein heating the tool, the metal sheet, and the pre-impregnated resin tape comprises using an autoclave.

33. (Previously Presented) The method of manufacturing a transparent window skin panel of claim 29, wherein the autoclave heats the tool, the metal sheet, and the pre-impregnated resin tape to approximately 350 degrees Fahrenheit under approximately 100 to 200 psi of pressure.

**DRAFT****REMARKS**

Claims 1, 3-7, 9-13, 15, 17-25, 27-33 are now pending in the application. Claims 1, 3-7, 9-13, 15, 17-25, 27-33 stand rejected. By the present amendment claims 6, 13, 18, 23, 24, 27 and 28 have been cancelled. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

**CLAIM OBJECTIONS**

Claim 13 was objected to for grammatical reasons. The undersigned has amended this claim in accordance with the Examiner's suggestion. Reconsideration is requested.

**REJECTION UNDER 35 U.S.C. § 112**

Claim 13 was rejected for being ambiguous, in view of the recitation of "metal sheets" in line 8. This has been corrected per the Examiner's suggestion. Reconsideration is requested.

**REJECTION UNDER 35 U.S.C. § 103**

Claims 13, 15, 17-25 and 27-33 stand rejected as being obvious over Graff (U.S. Pat. No. 3,074,832) in view of Day et al. (U.S. Pat. No. 5,665,450) and Padden (U.S. Pat. No. 5,500,272). This rejection is respectfully traversed.

Initially the Examiner will note that independent claim 13 has been amended to recite: "and where said plurality of fibers have an index of refraction that generally

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matches an index of refraction of a resin of said tape . . . ." Claim 1 has been amended along similar lines.

Independent claim 13 also has been amended to include the additional operation of "removing the skin panel from the tool and securing it to a portion of a fuselage of said airborne mobile platform."

It is respectfully submitted that this subject matter is not disclosed or suggested by the Graff/Day et al./Padden combination. Graff involves the construction of a window plate, but there is no teaching or suggestion that the window plate could include layers of pre-impregnated resin tape that has fibers and resin having generally matching indices of refraction. Also, there is no mention in Graff that the window plate described therein is suitable for use with an airborne mobile platform, or more specifically with a fuselage of an airborne mobile platform. With the present method, the generally matching indices of refraction provide a highly optically transparent window.

There is further no suggestion from Day et al. that the composite window structure described therein could be implemented in a method for forming a window having an integrally manufactured metal frame that forms a peripheral portion of the window. There simply is nothing in Day et al. that might suggest to one of ordinary skill in this art the desirability of this combination, so as to motivate one of ordinary skill to combine the teachings of these two references as the Examiner has done. Padden does not involve the manufacture of a window, but rather a graphite epoxy ply structural panel that is reinforced with at least one metal layer. In addition, the metal layer does not form a peripheral portion of the window. There is nothing in Padden to suggest using the teachings therein to form a window having a metal peripheral frame portion.

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With all due respect to the Examiner, these references appear to have been combined in hindsight using the Applicant's disclosure as a "roadmap". It is well established by the CAFC that there must be some teaching, motivation or desirability to combine the prior art references. A general relationship between the fields of the prior art references is not sufficient to establish the required "suggestion" or "motivation". Interactive Techs., Inc. v. Pittway Corp., Civ. App. No. 98-1464, slip op. at 13 (Fed. Cir. June 1, 1999) (unpublished), cert. denied, 528 U.S. 1046 (1999).

Furthermore, the Federal Circuit has stated:

The genius of invention is often a combination of known elements which in hindsight seems preordained. To prevent hindsight invalidation of patent claims, the law requires some "teaching, suggestion or reason" to combine the cited references.

McGinley v. Franklin Sports Inc., 262 F.3d 1339, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (citing Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 USPQ 2d 1378, 1383 (Fed. Cir. 1997)).

The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). In In re Fritch, the CAFC stated:

It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosure disclosures in the prior art to deprecate the claimed invention. Id. at 23 USPQ2d 1784.

**DRAFT**

Accordingly, it is respectfully maintained that the combination of references applied by the Examiner has been made in hindsight using the pending claims as a road map.

Claims 13, 15, 17-25 and 27-33 were rejected as being obvious over Graff/Day et al./Padden and further in view of Skubic et al. (U.S. Pat. No. 5,039,566). This rejection is also respectfully traversed. Skubic et al., while being directed to a transparent composite window for an aircraft, does not suggest the desirability of manufacturing a composite window with the peripheral frame structure as recited in the claims. Again, there is simply nothing in Skubic et al. that would suggest to one of ordinary skill in this art the method of forming an optically transparent composite window structure that includes a metal peripheral frame structure. Thus, Skubic et al. would not motivate one of ordinary skill to combine its teachings with the those of Graff, Day et al. and Padden to produce the subject matter of independent claim 13.

Claims 1, 3-7 and 9-12 were rejected as being obvious over Graff/Day et al./Padden and Skubic et al., as applied to claims 13, 15, 17-25 and 27-33 above, and further in view of Shorr (U.S. Pat. No. 3,081,205). Shorr is directed to a window assembly, however, there is no suggestion of the desirability of including its teachings in connection with the other limitations recited in independent claim 1 (e.g., matching indices of refraction of the fibers and resin; using a peripheral frame structure that is formed as an integral portion of a transparent window assembly). Again, the isolated teachings of Shorr appear to have been combined in hindsight with those of the other cited references to construct the obviousness rejection. Accordingly, reconsideration is respectfully requested.



**DRAFT****CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
Mark D. Elchuk, Reg. No. 33,686

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